ATTACHMENT D

Applicants' Response of January 12, 2005

"Second Response"

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Cao, et al.	§	DOCKET NO.: 26.0178 US
SERIAL NO.: 09/501,445	§	GROUP ART UNIT: 2128
FILED: February 10, 2000	§	
TITLE: Method of Designing Geophysical Surveys	§	EXAMINER: Dr. Hugh M. Jones

Via facsimile: ~~1-703-308-9051~~ 1-703-746-7238

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. 1.8

I hereby certify that this correspondence (along with any document referenced as being attached or enclosed hereto) is being facsimile transmitted to the United States Patent and Trademark Office on this date.

Setsuko Kawashima — January 12, 2005 (Date)

RESPONSE WITHIN TWO MONTHS TO FINAL OFFICE ACTION

Honorable Commissioner of Patents
Alexandria, VA 22313-1450

Sir:

In response to the Office Action of 12 November 2004, please enter the remarks in the above-identified application as follows:

Remarks begin on page 2 of this paper.

REMARKS

Claims 1-13 are pending in this application. Claims 1-13 were rejected in the Office Action dated 12 November 2004 ("Office Action"). Applicants traverse the outstanding rejections. Reconsideration and allowance of claims 1-13 is hereby requested.

The Examiner is respectfully requested to withdraw finality of the Office Action as premature in view of the Examiner's expanded explanation with respect to rejection of claims 1-13 under 35 U.S.C. 112, first paragraph. In the first Office Action, dated 25 February 2004, the Examiner did not establish a reasonable basis to question the enablement provided for the claimed invention. Specifically, the first Office Action, did not "present the best case with all the relevant reasons, issues, and evidence" in support of the enablement rejection. MPEP 2164.04. In consequence, the Examiner relies on the present Office Action to expand and explain the enablement rejection, in part using applicants' arguments in the previous Response to Office Action ("Response"), making finality of the present Office Action premature and inappropriate.

As discussed below, in elaborating and explaining the enablement rejection the Examiner misconstrues applicants' disclosure in the specification and arguments as relying on GeoFrame for enablement of the claimed invention. Specifically, the Examiner takes the position that applicants' specification and arguments in Response to the first Office Action "rely on the GeoFrame teaching," thereby making the GeoFrame material essential to the claimed invention. Accordingly, the Examiner is respectfully requested to withdraw finality of the present Office Action to allow applicants a full opportunity to respond to the expanded explanation in the present Office Action.

On page 2 of the Office Action, paragraphs 3 and 4, the Examiner states that "GeoFrame is relied upon for essential matter in the instant specification" and

"[a]pplicants have only provided a later version of the manual." Applicants respectfully disagree with the Examiner's characterization that GeoFrame is essential matter. Moreover, applicants are unsure what the Examiner means by "later version of the manual."

In compliance with the Examiner's request in the first Office Action, applicants have provided the Examiner with a copy of a GeoFrame manual for consideration. Applicants, however, respectfully disagree that GeoFrame material is essential for an understanding of the claimed invention. Indeed, as discussed below, the specification states that a geophysical model of a type generally used in designing seismic surveys can be used (page 4, line 4) in practicing the claimed invention, and GeoFrame is an example of a suitable geophysical model (page 5, lines 6-11). GeoFrame and other geophysical models are commercially available, and a person skilled in the art would be well versed with such models and would know how to acquire and use a suitable model for practicing the claimed invention. Therefore, applicants respectfully request the Examiner withdraw the requirement for additional "user's manuals to related Schlumberger software products" since applicant have fully complied with the Examiner's previous request in the first Office Action.

In the Office Action, on page 4, paragraph 12, the Examiner points to the specification at page 5, lines 6-12, for the proposition that "the specification repeatedly refers potential readers to GeoFrame ... to carry out the claimed invention." A closer reading of the referenced portion of the specification shows that applicants clearly state that GeoFrame is used only "by way of example" (page 5, line 6) and that "the methodology described can be applied to other such [software] environments while still retaining the essential features of the invention" (page 5, lines 9-10).

Applicants respectfully also direct the Examiner's attention to other parts of the specification (e.g., page 4, lines 4-10) which, when read in combination with page 5, lines 6-12, show that GeoFrame is not required to practice the claimed invention, and

a person skilled in the art is taught that other generally known methods for building a geophysical model may be used.

Applicants' previous arguments in the Response refer to GeoFrame by way of example and do not "rely on the GeoFrame teaching" to explain or teach the invention. Quite the contrary, applicants state on page 4 of the Response "the specification teaches the preferred characteristics of a suitable geophysical model and gives an example of a commercially available software package which has been found to be well suited to the present invention." [Emphasis added.]

Apart from pointing generally to GeoFrame, which as discussed above has been cited in the specification as an example of a geophysical model, and referring to applicants' previous Response, the Examiner has not specified what material is considered essential and is being attempted to be incorporated into the specification. In particular, applicants' references in the specification to GeoFrame by way of example, without more, do not make GeoFrame essential material, nor do such references constitute incorporation of essential material. At the very least, the Examiner needs to explain why a person skilled in the art, in light of the GeoFrame example, would not know how to use any generally available geophysical model to practice the invention. In view of the foregoing, applicants respectfully request the Examiner withdraw any outstanding objection to the specification.

The Examiner has rejected claims 1-13 under 35 U.S.C 112, first paragraph, as failing to comply with the enablement requirement. The Examiner reiterates that "the claimed "model" and its implementation" can not be found. Applicants respectfully submit that the Examiner's statement falls far short of establishing a reasonable basis to question the enablement provided for the claimed invention.

In particular, applicants do not claim a "model" *per se*. Rather, claim 1 specifies, in part, the method step of "preparing a geophysical model...." Applicants fail to understand why a person skilled in the art, familiar with commercially available software for preparing a geophysical model, would be unable to practice the invention

of claim 1. Morcover, applicants are at a loss as to how commercially available software may be incorporated into a specification, other than by identifying the preferred software by name and by its manufacturer, which the applicants have done in the specification of the present application. Applicants believe that it is the Examiner's burden to show, with "specific technical reasons" (MPEP 2164.04), that a person skilled in the art, reading applicants' disclosure in the specification, would not know how to prepare a geophysical model to practice the invention of claim 1. The Examiner has not explained with specific technical reasons why a person skilled in the art, in light of the GeoFrame example, would not know how to use any generally available geophysical model to practice the invention.

Apart from a mention that "the claimed "model" and its implementation" can not be found, the Examiner has not provided a reasonable explanation for non-enablement, nor has the Examiner provided specific technical reasons to support a *prima facie* case of lack of enablement. Accordingly, applicants respectfully submit that the Examiner, by not providing any specific explanation as to why the claimed method is not enabled, has failed to present a *prima facie* case for lack of enablement, and the rejection should be withdrawn.

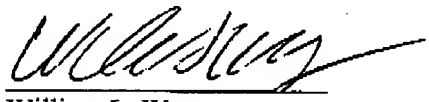
Applicants respectfully submit that the claimed method, including the step of "preparing a geophysical model", is adequately enabled in the specification. For example, on page 4, lines 4-10, and page 5, lines 24-32, the specification adequately explains to one skilled in the art how to formulate such a model. The specification further teaches the approach of the preferred embodiment, and refers to Figures 3 and 4 in doing so.

Thus the specification teaches the preferred characteristics of a suitable geophysical model and gives an example of a commercially available software package, which has been found to be well suited to the present invention. It is respectfully submitted that with such a teaching, one of skill in the art would not have to undergo undue experimentation to make or practice the present invention.

In light of the above remarks, applicants believe that the present application and claims 1-13 are in proper condition for allowance. Such allowance is earnestly requested. If the Examiner is contemplating any action other than allowance of all pending claims, the Examiner is urged to contact applicants' representative, Mr. William Wang, in Japan by telephone, fax or by using email: wwang@slb.com.

In the event that any additional fees or credits are due owing to this response, the Commissioner is hereby authorized to charge the amount necessary to cover the any fee that may be due or to credit any overpayment to Deposit Account 50-1122.

Respectfully submitted,



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Date: 12 January 2005

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